

CLAIMS

Now, therefore, the following is claimed:

1. A communication apparatus for communicating with telephony networks, comprising:  
 memory for storing sets of impedance control values;  
 a processor configured to select one of said sets of impedance control values and to serially transmit said selected set of impedance control values during a communication session between said communication apparatus and a remote communication device;  
 a digital-to-analog converter configured to receive said selected set of impedance control values from said processor and to transmit analog signals based on said selected set of impedance control values; and  
 an interface port configured to interface signals with a communication connection of a telephony network, wherein said interface port simulates an impedance based on said analog signals, said impedance substantially matching an impedance of said telephony network as measured from said communication connection.

2. The communication apparatus of claim 1, wherein said processor is configured to continuously transmit said selected set of impedance control values during said communication session.

1           3.       The communication apparatus of claim 1, wherein said processor is  
2 further configured to transmit data that is to be communicated from said  
3 communication apparatus to said remote communication device, said processor  
4 configured to combine said data with values of said selected set of impedance control  
5 values.

1           4.       The communication apparatus of claim 1, further comprising an input  
2 device configured to receive an input from a user, said processor configured to select  
3 said selected set of impedance control values based on said input.

1           5.       The communication apparatus of claim 1, wherein said processor is  
2 further configured to identify which of said sets of impedance control values, when  
3 converted to analog signals and transmitted to said interface port, causes said interface  
4 port to simulate said impedance that substantially matches said impedance of said  
5 telephony network.

1           6.       The communication apparatus of claim 5, wherein each of said sets of  
2 impedance control values, when converted to analog signals and transmitted to said  
3 interface port, causes said interface port to simulate a different impedance.

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10. The communication apparatus of claim 7, further comprising a means for receiving an input from a user, said selecting means configured to select said selected set of impedance control values based on said input.

11. A method for communicating with telephony networks, comprising the steps of:

providing an interface port;

interfacing said interface port with a communication connection of a telephony network;

storing sets of impedance control values;

selecting one of said sets of impedance control values;

serially transmitting said selected set of impedance control values to a digital-to-analog converter;

converting, at said digital-to-analog converter, said selected set of impedance control values into analog signals;

simulating an impedance at said interface port based on said analog signals;

and

performing said selecting step such that said impedance substantially matches an impedance of said telephony network as measured from said communication connection.

12. The method of claim 11, further comprising the step of combining values from said selected set of impedance control values with data that is to be communicated from said interface port to a remote communication device.

13. The method of claim 11, further comprising the steps of:

receiving an input; and

performing said selecting step based on said input.

14. The method of claim 11, further comprising the steps of:

interfacing said interface port with a communication connection of another  
telephony network;

selecting another of said sets of impedance control values;

serially transmitting said other selected set of impedance control values to said  
digital-to-analog converter;

converting, at said digital-to-analog converter, said other set of impedance  
control values into other analog signals;

simulating another impedance at said interface port based on said other analog  
signals; and

performing said selecting another of said sets of impedance control values step  
such that said other impedance substantially matches an impedance of said other  
telephony network as measured from said other communication connection.

providing an interface port;  
interfacing said interface port with a communication connection of a telephony network;  
transmitting analog signals to said interface port, said analog signals having voltages;  
varying said voltages of said analog signals; and  
causing said interface port to continuously simulate a particular impedance during a communication session in response to said analog signals.

16. The method of claim 15, further comprising the step of combining values from said selected set of impedance control values with data that is to be communicated from said interface port to a remote communication device.

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18. The method of claim 17, further comprising the steps of:

receiving an input; and

performing said selecting step based on input.

19. The method of claim 17, further comprising the steps of:

interfacing said interface port with a communication connection of another

telephony network;

transmitting other analog signals to said interface port, said other analog

signals having other voltages;

varying said other voltages of said other analog signals;

causing said interface port to continuously simulate a particular impedance

during another communication session in response to said other analog signals;

selecting another of said sets of impedance control values;

serially and continuously transmitting said other selected set of impedance

control values to said digital-to-analog converter during another communications

session;

producing said other analog signals at said digital-to-analog converter; and

performing said varying said other voltages step based on said other selected

set of impedance control values.